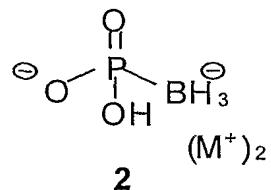


CLAIMS:

1. An inorganic boranophosphate salt of the general formula 2:



5 wherein M is a counterion.

2. An inorganic boranophosphate salt according to claim 1 wherein the counterion M is ammonium (NH_4^+) or an inorganic cation derived from an alkali, alkaline earth or transition metal.

10 3. The inorganic boranophosphate salt according to claim 2 wherein the counterion M is Na^+ , K^+ , Li^+ , Ca^{++} , Mg^{++} , Ni^{++} , Cu^{++} , Fe^{++} , Fe^{+++} , Co^{++} , Zn^{++} , Pd^{++} , or Ag^+ .

15 3. An inorganic boranophosphate salt according to claim 1 wherein the counterion M is an organic cation derived from an amine of the formula R_3NH^+ , wherein R is $\text{C}_1\text{-C}_{18}$, alkyl, phenyl, heteroaryl or two of the Rs together with the nitrogen atom to which they are attached form a 3-7 membered ring optionally containing a further heteroatom selected from the group consisting of N, S and O.

4. The inorganic boranophosphate salt according to claim 3 wherein each R is $\text{C}_1\text{-C}_6$, alkyl, more preferably ethyl, propyl or butyl

20 5. The inorganic boranophosphate salt according to claim 1 selected from the group consisting of ammonium boranophosphate, triethylammonium boranophosphate, and tributylammonium boranophosphate.

6. A method for the preparation of an inorganic boranophosphate salt according to claim 1, comprising reacting tris(trimethylsilyl)-phosphite with

borane-dimethylsulfide complex of the formula BH_3SMe_2 , in dry acetonitrile under inert gas, and treating the formed intermediate with the suitable base MOH in water or methanol, thus obtaining the desired salt.

7. The method according to claim 6, wherein said base is methanolic ammonia
5 or an aqueous NH_4OH solution, thus resulting in the ammonium salt, wherein M is NH_4^+ .

8. The method according to claim 6, wherein said base is tributylamine, Bu_3N , in methanol, thus resulting in the tributylammonium salt, wherein M is Bu_3NH^+ .

9. The method according to claim 6, comprising treating the intermediate with
10 triethylammonium bicarbonate buffer, thus resulting in the Et_3NH^+ salt.

10. Use of a boranophosphate salt according to any one of claims 1 to 5 for the manufacture of a pharmaceutical preparation for boron neutron-capture therapy of cancer.

11. Use of a boranophosphate salt according to any one of claims 1 to 5 as
15 synthetic building blocks in the synthesis of borano nucleotides.